

CLAIMS

1. A plain bearing having an overlay alloy layer at a sliding surface of the plain bearing, the plain bearing comprising a layer of a strong backing material, a layer of a first bearing alloy bonded to the strong backing material and a layer of a second bearing material comprising said overlay material bonded to said first bearing alloy layer wherein said second bearing material comprises tin having included in the matrix thereof an organic levelling agent.
2. A plain bearing according to claim 1 wherein the organic material is selected from at least one of: nonylphenolpolyglycolether and pyrocatechol.
3. A plain bearing according to either claim 1 or claim 2 wherein the hardness of the overlay is in the range from about 20 to 30Hv.
4. A plain bearing according to any one preceding claim further including an interlayer between the surface of the first bearing material and the tin overlay to act as a diffusion barrier therebetween.
5. A plain bearing according to claim 4 wherein the interlayer is selected from the group comprising: nickel, cobalt, copper, silver, iron and alloys thereof.
6. A method for the deposition of an overlay layer onto the surface of a plain bearing, the bearing comprising a strong backing material having a layer of a first bearing material thereon, said overlay being deposited upon the surface of said first bearing material, the method comprising the steps of: providing a bearing having a surface on which to deposit said overlay; immersing said bearing in a plating solution having a supply of tin ions and an

- organic levelling agent in said solution; making said bearing cathodic with respect to an anode in said solution; and depositing an overlay of tin, apart from unavoidable impurities, said tin overlay also having said organic levelling agent included in a matrix thereof.
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7. A method according to claim 6 wherein the overlay is deposited in a slot jig apparatus.
8. A method according to claim 7 wherein the plating solution is sparged through the slot towards the bearing bore.
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9. A method according to either claim 6 or claim 7 wherein a plating current density lies in the range from 2 to 3 A/dm².